

A. Louis Dorny (CA 212054)
ldorny@tesla.com
Krista M. Carter (CA 225229)
kricarter@tesla.com
Terry W. Ahearn (CA 216543)
tahearn@tesla.com
TESLA, INC.
3000 Hanover St.
Palo Alto, CA 94304
Tel: 510-298-8516
Paul Margulies (*pro hac vice* forthcoming)
pmargulies@tesla.com
TESLA, INC.
800 Connecticut Ave. NW
Washington, DC 20006
Tel: 202-695-5388
Attorneys for TESLA, INC.

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
(OAKLAND DIVISION)**

TESLA, INC., a Texas corporation,

Plaintiff,

v.

MATTHEWS INTERNATIONAL CORP., a
Pennsylvania corporation.,

Defendants.

Case No. _____

COMPLAINT FOR:

- 1. Correction of Inventorship
(35 U.S.C. § 256)**
- 2. Breach of Contract**
- 3. Promissory Estoppel**
- 4. Quasi-Contract/Restitution**

JURY TRIAL DEMANDED

Plaintiff Tesla, Inc. (“Tesla”), by way of its Complaint against Defendant Matthews International Corp. (“Matthews”), states and alleges as follows:

NATURE OF ACTION

1. This is a civil action for correction of inventorship pursuant to 35 U.S.C. § 256 and breach of contract or, in the alternative, promissory estoppel and quasi-contract/restitution.

PARTIES

2. Plaintiff Tesla is a Texas company, having its principal place of business at 1 Tesla Road, Austin, Texas.

1
2 3. On information and belief, Defendant Matthews is a corporation organized and
3 incorporated under the laws of the Commonwealth of Pennsylvania, having its principal place of
4 business at Two Northshore Center, Pittsburgh, Pennsylvania.

5 **JURISDICTION AND VENUE**

6 4. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C.
7 §§ 1331 and 1338. The Court also has subject matter jurisdiction over this action pursuant to 28
8 U.S.C. § 1332 because the matter in controversy is between citizens of different States and the
9 controversy exceeds the sum or value of \$75,000, exclusive of interest and costs.

10 5. The Court also has supplemental jurisdiction over the breach of contract claim or, in
11 the alternative, promissory estoppel and quasi-contract/restitution claims, pursuant to 28 U.S.C. §
12 1367 because they are so related to the claim brought under the U.S. patent laws as to form part of
13 the same case or controversy.

14 6. The Court has personal jurisdiction over Matthews because Matthews's contacts
15 with the Northern District of California are sufficient to subject it to personal jurisdiction if this
16 District were a separate State. The Court also has personal jurisdiction over Defendant Matthews
17 because Matthews has committed acts within and specifically directed to the State of California
18 giving rise to Plaintiff's claims in this action, including, but not limited to, supplying equipment to
19 Tesla in this District. Thus, Matthews has established minimum contacts with California such that
20 the exercise of specific personal jurisdiction would not offend traditional notions of fair place and
21 substantial justice. Matthews's employees regularly travel to California, and otherwise direct
22 communication to California, including, but not limited to, repeated trips to California over the last
23 several years by Matthews's Chief Technology Officer, Gregory Babe. Defendant Matthews
24 regularly directs communications to Tesla in California, including by both email and
25 videoconference, including, but not limited to, communications directly related to the claims being
26 asserted by Plaintiff in this action. Matthews has also provided substantial equipment to Tesla in
27 Fremont, California.

28 7. Venue is proper in this District pursuant to 28 U.S.C. § 1391.

DIVISIONAL ASSIGNMENT

8. Pursuant to Civil Local Rule 3-5(b), a substantial part of the events giving rise to this action occurred in Fremont, California, in Alameda county, where Matthews made repeated trips and delivered equipment. Therefore, assignment to the Court's Oakland division is appropriate. Although another case is pending in this District between the same parties (Case No. 24-cv-03615-VKD), Tesla does not believe the cases are related under Civil Local Rule 3-12.

STATEMENT OF FACTS

The Parties' Relationship

9. Tesla completed its acquisition of Maxwell Technologies, Inc. ("Maxwell") in May 2019.

10. Prior to that acquisition, Maxwell had spent years researching dry processes for making electrode films. Initially, Maxwell's focus was on making dry electrodes for ultracapacitors. An ultracapacitor is, in broad terms, an energy storage device that can rapidly charge and discharge energy faster than a battery.

11. In the mid-2000s, Maxwell obtained custom equipment for its ultracapacitor work from Saueressig GmbH or related entities ("Saueressig"), which later became a part of Matthews. Maxwell and Saueressig had a work-for-hire relationship in that Maxwell ordered a piece of equipment and Saueressig would make and deliver the equipment to Maxwell's specifications.

12. Around 2012, Maxwell began exploring the possibility of adapting its ultracapacitor technology for use with lithium-ion battery electrodes. Because lithium-ion battery electrodes are made with different materials than ultracapacitors, Maxwell faced substantial engineering challenges. This project became known as "dry battery electrode" or "DBE."

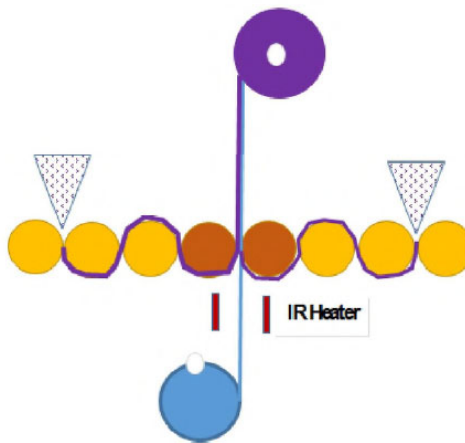
13. Dr. Porter Mitchell ("Dr. Mitchell") was a long-time employee of Maxwell, starting with the company in approximately 2002 and continuing through the Tesla acquisition, when he became an employee of Tesla until 2021. At the time of the Tesla acquisition, Dr. Mitchell was the Sr. Manager for Electrode and Manufacturing Engineering at Maxwell. Dr. Mitchell holds a B.S. in chemistry and a Ph.D. in Polymer Science.

14. Dr. Mitchell worked to develop Maxwell's DBE process. Throughout that work,

Maxwell viewed Saueressig as a custom equipment vendor whereby Saueressig would build equipment to Maxwell's specifications. The primary innovation, if not all innovation, came from Maxwell.

Dr. Porter Mitchell is the Sole Inventor of U.S. Patent No. 12,136,727

15. On October 23, 2018, Dr. Mitchell emailed engineers at Saueressig, part of Matthews, identifying the novel concept of a "Film to Lamination" where the film is "laminated directly." He included the following drawing:



16. Dr. Mitchell's drawing shows two sets of four calendering rollers, with different "nips" serving different purposes. The drawing illustrates film being laminated simultaneously onto both sides of a current collector, as demonstrated with the "IR Heater" on both sides of the current collector. Kay Wolters, an engineer at Saueressig, responded the next day recognizing the novelty of the design.

17. Dr. Mitchell proceeded to refine his ideas and prepare a patent application.

18. On January 16, 2019, Maxwell filed Provisional Application No. 62/793,333 (the "333 provisional") on Dr. Mitchell's ideas. It names Dr. Mitchell as the first inventor. In addition, it names as inventors Kay Wolters and Thomas Hackfort of Saueressig. On February 25, 2019, additional engineers from Saueressig were identified as joint inventors: Frank Bogenstahl, Rene Wolters, Christoph Lansing, and Jorg Gottszky. On information and belief, this addition was done consistent with a request by Matthews.

19. To the extent the Saueressig engineers performed work relating to Dr. Mitchell's

1 ideas, it would have been pursuant to a Maxwell purchase order.

2 20. Dr. Mitchell assigned all of his right, title, and interest in the '333 provisional, and
3 any applications and patents worldwide claiming priority to the '333 provisional, to Maxwell.

4 21. Subsequently, on May 16, 2019, as noted above, Tesla completed its acquisition of
5 Maxwell. As part of that acquisition, Tesla was assigned Maxwell's ownership rights in the '333
6 provisional and any applications and patents worldwide claiming priority to the '333 provisional,
7 including the patent at issue in this action.

8 22. Less than one year later, on January 14, 2020, Maxwell filed Application
9 PCT/US2020/013531 (the "PCT '531 application") claiming priority to the '333 provisional. The
10 PCT '531 application identifies the same list of inventors – both Dr. Mitchell and the Saueressig
11 engineers – as the '333 provisional. The PCT '531 application entered the National Phase in the
12 U.S. on July 14, 2021, as Application No. 17/422,966, again naming the same inventors including
13 Dr. Mitchell.

14 23. Defendant Matthews, without authority or authorization from Tesla, filed
15 Application No. 18/731,472 (the "'472 application") on June 3, 2024. The '472 application is a
16 continuation of Tesla's National Phase application and shares a specification with it. While the
17 '472 application names as inventors the same six Saueressig engineers as does the '333 provisional,
18 it *omits* Dr. Mitchell as an inventor. The '472 application issued as U.S. Patent No. 12,136,727 (the
19 "'727 patent") on November 5, 2024.

20 24. Although Dr. Mitchell is a true inventor of all claims of the '727 patent, Matthews
21 omitted him from the patent. For example, claim 1 of the '727 patent recites a "a first multi roll
22 calendar comprising a first series of horizontally aligned rolls that include a first roll, a second roll,
23 a third roll, and a final roll" and "a second multi roll calendar comprising a second series of
24 horizontally aligned rolls that include a first roll, a second roll, a third roll, and a final roll." As
25 evidenced by the drawing shown above and provided by Dr. Mitchell to Matthews on October 23,
26 2018, Dr. Mitchell invented a system with two sets of four horizontally aligned rolls.

27 25. Claim 1 further requires that "the first and second rolls" in each series form a "film
28 creation nip configured to receive" powder and compress it into a "film." Dr. Mitchell clearly set

1 forth this concept in his October 23, 2018 email as seen by the triangles above particular nips.
 2 Claim 1 also requires that “the second and third rolls” in each series form a “calendering nip
 3 configured to receive” film and compress it. This is also illustrated in Dr. Mitchell’s October 23,
 4 2018 email. Claim 1 also requires that the two sets of “multi roll calendars” are “horizontally
 5 aligned” such that the final roll of each series “forms a lamination nip configured to simultaneously
 6 laminate” the films onto a current collector. Dr. Mitchell conceived this, also evidenced by his
 7 October 23, 2018 email, which illustrates the concept and discusses the need for lamination. Claim
 8 1 further requires “a rewind station that winds the laminated current collector from the lamination
 9 nip onto a roll.” Again, Dr. Mitchell’s October 23, 2018 email demonstrates this novel
 10 contribution. It is indisputable that Dr. Mitchell alone invented every aspect of claim 1.

11 26. Claim 1 is the only independent claim of the ’727 patent, and Dr. Mitchell’s sole
 12 inventorship can be seen in the dependent claims, *inter alia*, based on his October 23, 2018 email.

13 27. At the very least, Dr. Mitchell contributed significantly to the conception of all the
 14 claimed inventions of the ’727 patent. His contribution to each was substantial, harnessing his
 15 extensive background in Maxwell’s ultracapacitor work. Dr. Mitchell worked on the cutting edge
 16 of this technology, and his inventions went far beyond well-known concepts in the art at the time.

17 28. Matthews continues to prosecute additional applications claiming priority back to the
 18 ’333 provisional, including without naming Dr. Mitchell as an inventor, let alone as sole inventor.
 19 Should any of those patents issue, Tesla will amend its Complaint.

20 ***Matthews Entered Into an Oral Contract to Assign the ’333 Provisional Family to Tesla***

21 29. As stated above, Matthews is not the sole legal and rightful owner of the ’333
 22 provisional and any applications and patents worldwide claiming priority to it. Nevertheless, and
 23 only because of Matthews’s improper behavior, upon information and belief, Matthews is the
 24 putative owner of all right, title, and interest that was previously held by Messrs. Kay Wolters,
 25 Hackfort, Bogenstahl, Rene Wolters, Lansing, and Gottszky.

26 30. As early as 2018, and consistent with the relationship between the parties, Maxwell
 27 requested assignment of the rights to the ’333 provisional, and its progeny, from Matthews.

28 31. For example, in 2019, Dr. Mitchell sent an email to Matthews regarding the ’333

1 application. In it, Dr. Mitchell relays instructions to Matthews to sign a “company to company
2 assignment from Saueressig to Maxwell.”

3 32. In or about 2019, Maxwell and Matthews agreed, in consideration of the ongoing
4 business relationship, including equipment orders and payments made by Maxwell, that the ’333
5 provisional and any applications and patents worldwide claiming priority to the ’333 provisional
6 would be assigned to Maxwell (the “Maxwell Agreement”).

7 33. After Tesla’s acquisition of Maxwell, Matthews acknowledged that assignment
8 under the Agreement would be to Tesla. In the alternative, Tesla and Matthews agreed, in
9 consideration of the ongoing business relationship, including equipment orders and payments made
10 by Tesla, that the ’333 provisional and any applications and patents worldwide claiming priority to
11 the ’333 provisional would be assigned to Tesla (together with the “Maxwell Agreement,” the
12 “Agreement”).

13 ***Matthews’s Breach of the Agreement***

14 34. In November 2024, Matthews, for the first time, indicated that it would not honor the
15 Agreement. In the interim, while the parties were not focused on patent issues, the parties’ business
16 relationship had continued and was primarily focused on building Tesla’s equipment for DBE.

17 35. However, the Agreement was acknowledged on numerous occasions, including
18 during prosecution of the family, and is memorialized in several correspondence, memorandum, and
19 contemporaneous notes.

20 36. For example, in June of 2021, Gregory Babe, then the Chief Technology Officer of
21 Matthews, confirmed that “we are working through the patent application to ensure everything is in
22 order prior to executing” the assignment. In September 2022, patent prosecution counsel for
23 Matthews wrote to Tesla’s patent prosecution counsel regarding the patent family, including the
24 ’333 provisional, inquiring as to the status of “power of attorney and/or assignments documents for
25 signature by the Saueressig inventors.” And in January 2023, patent prosecution counsel for
26 Matthews informed Tesla’s patent prosecution counsel of the transfer of a related pending
27 application to Tesla.

28 37. On or about August 3, 2023, Mr. Babe confirmed to Dr. Bonne Eggleston, head of

1 DBE at Tesla, that Matthews had entered into the Agreement to assign the '333 provisional and its
2 progeny to Tesla as successor to Maxwell.

3 38. During an in-person meeting between Matthews and Tesla employees in December
4 2023, Tesla presented a slide that referenced the Agreement. It noted as a "status" that "Matthews
5 agreed to assign priority patent and all related applications to Tesla" but that the "Assignments have
6 not been completed." Tesla further noted that it was "waiting for Matthews to follow through with
7 the necessary signatures." Matthews did not disavow or dispute the Agreement.

8 39. It was not until November 2024 that Tesla learned that Matthews intended to
9 intentionally breach the Agreement and claim ownership of the '333 provisional family, rather than
10 assign it to Tesla, ostensibly out of spite for the ongoing legal disputes between the parties.

11 **COUNT I—CORRECTION OF INVENTORSHIP OF**
12 **U.S. PATENT NO. 12,136,727 (35 U.S.C. § 256)**

13 40. Tesla realleges and incorporates by reference the foregoing paragraphs as if fully set
14 forth herein.

15 41. The '727 patent does not name Dr. Mitchell as an inventor.

16 42. Dr. Mitchell independently conceived of each element of each claim in the '727
17 patent. In the alternative, Dr. Mitchell was at least a joint inventor of the '727 patent as he
18 conceived of at least one claim.

19 43. Because Tesla was assigned Maxwell's ownership rights in the '333 provisional and
20 any applications and patents claiming priority to the '333 provisional, including the patent at issue
21 in this action, Tesla is the sole owner or, at a minimum, a co-owner of the '727 patent.

22 44. Because Dr. Mitchell is the rightful inventor of the '727 patent, the Court should
23 direct the Commissioner of Patents to add Dr. Mitchell to the '727 patent as an inventor.

24 45. In addition, Messrs. Kay Wolters, Hackfort, Bogenstahl, Rene Wolters, Lansing, and
25 Gottszky did not conceive of any elements of any claims of the '727 patent. Instead, all elements
26 were conceived by Dr. Mitchell.

27 46. Therefore, the Court should also direct the Commissioner of Patents to remove
28 Messrs. Kay Wolters, Hackfort, Bogenstahl, Rene Wolters, Lansing, and Gottszky as inventors of

1 the '727 patent.

2 **COUNT II—BREACH OF CONTRACT**

3 47. Tesla realleges and incorporates by reference the foregoing paragraphs as if fully set
4 forth herein.

5 48. Maxwell/Tesla and Matthews entered into an Agreement to assign the '333
6 provisional, and all applications and patents emanating from it worldwide, to Tesla, as described
7 and alleged herein.

8 49. Maxwell/Tesla performed its obligations under the Agreement as described and
9 alleged herein.

10 50. Matthews has breached the Agreement as described and alleged herein.

11 51. As a direct and proximate result of Matthews's breach as described and alleged
12 herein, Tesla has suffered, and continues to suffer, substantial, irreparable, and immediate harm and
13 monetary damages in an amount exceeding \$75,000 and to be proven at trial.

14 52. Because damages are inadequate to make Tesla whole, Tesla is further entitled to
15 specific performance of the Agreement by assignment of all of Matthews's interest in the '333
16 provisional, and all applications and patents worldwide that claim priority to the '333 provisional, to
17 Tesla.

18 **COUNT III – PROMISSORY ESTOPPEL**

19 53. Tesla realleges and incorporates by reference the foregoing paragraphs as if fully set
20 forth herein.

21 54. To the extent the Agreement is found to be defective or unenforceable, Matthews
22 knew that Tesla was relying, and did rely, on Matthews's promise to assign the '333 provisional
23 family to Maxwell/Tesla, as was affirmed by Matthews on numerous occasions as described above.

24 55. As a consequence of Tesla's reliance, as described above, Tesla continued its
25 business relationship with Matthews building Tesla's DBE equipment from 2019 and continuing to
26 this day. Had Tesla known at any time between 2019 and now that Matthews was going to backout
27 of its promises and attempt to claim Tesla's innovations as its own, Tesla would not have continued
28 its business relationship with Matthews, which included equipment orders and substantial payments

made by Tesla to Matthews.

56. As a result of Tesla's reliance, Tesla has suffered, and continues to suffer, substantial, irreparable, and immediate harm and monetary damages through the loss of its rightful ownership in the '333 provisional and any applications and patents worldwide claiming priority to the '333 provisional. Because monetary damages are inadequate to make Tesla whole, substantial injustice and unconscionable injury can only be avoided through enforcement of Matthews's promise.

COUNT IV – QUASI-CONTRACT/RESTITUTION

57. Tesla realleges and incorporates by reference the foregoing paragraph as if fully set forth herein.

58. Tesla is the rightful owner of the '333 provisional and any applications and patents worldwide claiming priority to the '333 provisional.

59. Matthews purports to be, and holds itself out to be, the owner of the '333 provisional and any applications and patents worldwide claiming priority to the '333 provisional.

60. To the extent the Agreement is found to be defective or unenforceable, Matthews has been unjustly enriched by the inventions rightfully owned by Tesla by improperly obtaining patents arising from the '333 provisional and any applications and patents worldwide claiming priority to the '333 provisional and by commercially practicing and financially benefitting from those inventions and patents rightfully owned by Tesla.

61. Tesla is entitled to a constructive trust under which Matthews is found to have held the '333 provisional and any applications and patents worldwide claiming priority to the '333 provisional for the benefit of Tesla pursuant to Cal. Civ. Code §§ 2223 and 2224.

PRAYER FOR RELIEF

WHEREFORE, Tesla respectfully requests that the Court:

On Count I:

- (a) Enter judgment that Dr. Porter Mitchell is an inventor of the '727 patent;
- (b) Enter judgment that Messrs. Kay Wolters, Hackfort, Bogenstahl, Rene Wolters, Lansing, and Gottszky are not inventors of the '727 patent;

- 1 (c) Issue an Order directing the Commissioner of Patents at the United States Patent and
 2 Trademark Office to correct the inventorship of the '727 patent pursuant to 35
 3 U.S.C. § 256 to: (1) add Dr. Mitchell as an inventor and whose omission as an
 4 inventor was without any deceptive intent on behalf of Dr. Mitchell; and (2) remove
 5 Messrs. Kay Wolters, Hackfort, Bogenstahl, Rene Wolters, Lansing, and Gottszky as
 6 inventors of the '727 patent;

7 On Count II:

- 8 (d) Enter Judgment that Defendant Matthews breached the Agreement;
 9 (e) Issue an order assigning the '333 provisional and all patents and applications
 10 worldwide claiming priority thereto to Tesla;
 11 (f) Issue an order directing Matthews to take all actions necessary to confirm
 12 assignment and transfer to Tesla prosecution of all patents and applications
 13 worldwide claiming priority to the '333 provisional;
 14 (g) Award Tesla damages in an amount sufficient to compensate Tesla for Matthews's
 15 breach of the Agreement;
 16 (h) Award punitive damages in an amount to punish Matthews for its breach of the
 17 Agreement and in order to deter Matthews from engaging in similar breaches of
 18 contract in the future;
 19 (i) Award prejudgment interest corresponding to Matthews's breach of the Agreement;

20 On Count III, in the alternative:

- 21 (j) Issue an order assigning the '333 provisional and all patents and applications
 22 worldwide claiming priority thereto to Tesla;
 23 (k) Award Tesla damages in amount sufficient to compensate Tesla's detrimental
 24 reliance;
 25 (l) Issue an order directing Matthews to take all actions necessary to confirm
 26 assignment and transfer to Tesla prosecution of all patents and applications
 27 worldwide claiming priority to the '333 provisional;
 28

On Count IV, in the alternative:

- (m) Award Tesla damages in an amount sufficient to compensate Tesla for Matthews's unjust enrichment;
- (n) Impose a constructive trust over Matthews's interest in the '333 provisional, and all applications and patents emanating from it worldwide, for the benefit of Tesla; and

On all Counts:

- (o) Award any such other relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: February 13, 2025

TESLA, INC.

Respectfully submitted,

/s/Terry W. Ahearn

A. Louis Dorny (CA 212054)
ldorny@tesla.com
Krista M. Carter (CA 225229)
kricarter@tesla.com
Terry W. Ahearn (CA 216543)
tahearn@tesla.com
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